

DATE: Sunday, November 14, 2004

Hide?	<u>Set</u> <u>Name</u>	Query	<u>Hit</u> Count		
	DB=USPT; PLUR=YES; OP=ADJ				
	L28	126 and priorit\$4	2		
	L27	12 and priorit\$4	15		
	L26	6308205[uref]	13		
	L25	6308205.pn.	1		
	L24	5220380.pn. or 5184179.pn.	2		
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	L23	(determ\$4 or calculat\$ or find\$4 or judg\$4) with priorit\$4 near5 order with (service or maintain\$6) with (printer or apparatus or equipment or copier or printer/copier or device)	9		
	L22	(determ\$4 or calculat\$ or find\$4) with priorit\$4 near5 order with (service or maintain\$6) with (printer or apparatus or equipment or copier or printer/copier or device)	8		
	DB=U	JSOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ			
	L21	(determ\$4 or calculat\$ or find\$4) with priorit\$4 near5 order with (service or maintain\$6) with (printer or apparatus or equipment or copier or printer/copier or device)	6		
	DB=U	JSPT; PLUR=YES; OP=ADJ			
	L20	(determ\$4 or calculat\$ or find\$4) with priorit\$4 near5 order with (service or maintain\$6) with (printer or apparatus or equipment or copier or printer/copier or device)	8		
	L19	L18 and l13	1		
	L18	L17 and 112	783		
	L17	358/1.15.ccls.	1606		
	L16	112 same (based or depend\$4) with (character\$6 or type or color or image or speed)	15		
	L15	13 same (based or depend\$4) with (character\$6 or type or color or image or speed)	5		
	L14	L13 and 112	3		
	L13	709/223.ccls.	1606		
	L12	(determ\$4 or calculat\$ or find\$4) with priorit\$4 near5 order with (printer or apparatus or equipment or copier or printer/copier or device)	284		
	L11	(determin\$4 or judg\$3) with priorit\$4 near5 order with first adj5 (printer or apparatus or equipment or copier or printer/copier)same second adj5 (printer or apparatus or equipment or copier or printer/copier)	4		

L10	19 and priorit\$4	1
L9	5305457[uref]	9
L8	(determin\$4 or judg\$3) with priorit\$4 near5 order with first adj5 (printer or apparatus or equipment or copier or printer/copier)same second adj5 (printer or apparatus or equipment or copier or printer/copier)	4
L7	determin\$6 same priorit\$4 with order same (servic\$3 or maintain\$6) same (printer or copier or printer/copier)	38
L6	priorit\$4 with order with (servic\$3 or maintain\$6) with (printer or copier or printer/copier)	1
L5	priorit\$4 near5 order with (servic\$3 or maintain\$6) near5 (printer or copier or printer/copier)	0
L4	priorit\$4 near5 order with (servic\$3 or maintain\$6) near5 (device or printer or copier or printer/copier)	42
L3	priorit\$4 near5 (servic\$3 or maintain\$6) near5 (device or printer or copier or printer/copier)	432
L2	priorit\$4 near5 (servic\$3 or maintain\$6) near5 (device or printer or copier or printer/copier)same (trouble or problem)	15
L1	priorit\$4 same (servic\$3 or maintain\$6) same (device or printer or copier or printer/copier)	3207



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	L18	L17 and 112	783
	L17	358/1.15.ccls.	1606
	L16	112 same (based or depend\$4) with (character\$6 or type or color or image or speed)	15
	L15	13 same (based or depend\$4) with (character\$6 or type or color or image or speed)	5
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	L7	determin\$6 same priorit\$4 with order same (servic\$3 or maintain\$6) same (printer or copier or printer/copier)	38
2000	L6	priorit\$4 with order with (servic\$3 or maintain\$6) with (printer or copier or printer/copier)	1
	L5	priorit\$4 near5 order with (servic\$3 or maintain\$6) near5 (printer or copier or printer/copier)	0
	L4	priorit\$4 near5 order with (servic\$3 or maintain\$6) near5 (device or printer or copier or printer/copier)	42
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	DB=U	JSOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ	
	L21	(determ\$4 or calculat\$ or find\$4) with priorit\$4 near5 order with (service or maintain\$6) with (printer or apparatus or equipment or copier or printer/copier or device)	. 6
	DB=U	JSPT; PLUR=YES; OP=ADJ	
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	L16	112 same (based or depend\$4) with (character\$6 or type or color or image or speed)	15
	L15	13 same (based or depend\$4) with (character\$6 or type or color or image or speed)	5
	L14	L13 and l12	3
	L13	709/223.ccls.	1606
	L12	(determ\$4 or calculat\$ or find\$4) with priorit\$4 near5 order with (printer or apparatus or equipment or copier or printer/copier or device)	284
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L1	priorit\$4 same (servic\$3 or maintain\$6) same (device or printer or copier or printer/copier)	3207



US005220380A

United States Patent [19]

Hirata et al.

[11] Patent Number:

5,220,380

[45] Date of Patent:

Jun. 15, 1993

[54] CONTROL SYSTEM FOR COPYING MACHINES WITH IMPROVED COMMUNICATION FUNCTION FOR CENTRALIZED CONTROL UNIT

[75] Inventors: Sumiaki Hirata, Aichi; Kazunobu Maekawa, Toyokawa, all of Japan

[73] Assignee: Minolta Camera Kabushiki Kaisha,

Osaka, Japan

[21] Appl. No.: 912,661

[22] Filed: Jul. 14, 1992

Related U.S. Application Data

[63] Continuation of Ser. No. 742,626, Aug. 7, 1991, abandoned.

[30]	Foreign Application	Priority Data
Aug	g. 10, 1990 [JP] Japan	2-213275
[51]	Int. Cl.5	G03B 21/00
[52]	U.S. Cl	355/204; 340/825.51;
	358/401; 35	88/408; 379/96; 379/100
[58]	Field of Search	340/825.5, 825.51;
	355/200, 202, 203, 204	; 358/400, 401, 402, 403,
	404, 405, 406, 407, 408	, 468; 379/92, 96, 97, 98,
		100

[56] References Cited

U.S. PATENT DOCUMENTS

4,058,672	11/1977	Crager et al	358/407
4,167,322	9/1979	Yano et al.	
4,322,813	3/1982	Howard et al	364/900
4,390,953	6/1983	Johnstone et al	364/474
4,497,037	1/1985	Kato et al	364/900
4,583,834	4/1986	Seko et al	355/206
4,739,366	4/1988	Braswell et al	355/208
4,766,548	8/1988	Cedrone et al	364/479
4,797,706	1/1989	Sugishima et al	355/200 X
4,903,016	2/1990	Murai et al	340/825.5
4,979,132	12/1990	Sugimoto	364/520
4,994,926	2/1991	Gordon et al	358/400
4,996,703	2/1991	Gray et al	379/40
5,077,582	12/1991	Kravette et al	355/206

FOREIGN PATENT DOCUMENTS

54-142559 8/1984 Japan . 63-301667 12/1988 Japan .

OTHER PUBLICATIONS

Lynn S. Ritter, "Remote Diagonostic—Tool Kit of the Future", 1989, pp. 1-6, Dataquest Research Newsletter.

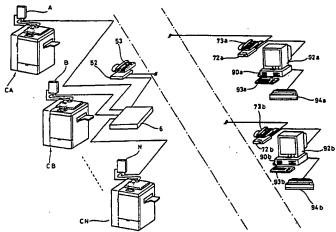
Primary Examiner—Michael L. Gellner Assistant Examiner—P. Stanzione

Attorney, Agent, or Firm-Burns, Doane, Swecker & Mathis

[57] ABSTRACT

A copying machine control system according to the present invention includes a plurality of data terminals collecting data related to a plurality of copying machines, respectively, a centralized control unit for communicating data with each data terminal through a communication network, and a communication control unit for connecting the plurality of data terminals and the communication network. Each of the data terminals includes a request device for requesting the communication control unit communication with the centralized control unit when predetermined transmission condition including one with high priority and one with low priority is satisfied, a transmitting device for transmitting the priority of the transmission condition to the communication control unit when the predetermined transmission condition is satisfied, and a communication device for communicating with the centralized control unit when communication with the centralized control unit is permitted by the communication control unit. The communication control unit includes a first controller for, when request for communication is caused by only one of the data terminals, permitting the data terminal to communicate with the centralized control unit, and a second controller for, when requests for communication are caused from a plurality of the data terminals, permitting a data terminal having transmission condition with the highest priority to communicate with the centralized control unit.

9 Claims, 24 Drawing Sheets





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